

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for identifying an agent capable of modulating expression of CYP2S1 by a skin cell, comprising the steps of:

a) ~~providing a cell comprising a reporter gene or CYP2S1 gene under control of a regulatory sequence shown in Figure 7 comprising at least an XRE-like sequence, an AP-1 like sequence or a RARE-like sequence;~~

—b) contacting a test agent with said cell;

[[c]] b) incubating said cell under conditions which are conducive to enable expression of said CYP2S1 gene ~~or reporter gene~~ when in the absence of the test agent; and

[[d]] c) detecting ~~modulation a different level~~ of expression of said CYP2S1 gene compared to CYP2S1 expression in the absence of the test agent or said reporter gene.

2-14. (Cancelled)

15. (Currently Amended) The method according to claim [[39]] 35 wherein ~~detection of any modulation in the expression~~ detecting the level of CYP2S1 is carried out using an antibody specifically reactive to CYP2S1.

16. (Currently Amended) The method according to claim [[39]] 35 wherein detecting the level of CYP2S1 is detecting the level of CYP2S1 mRNA ~~detection of any modulation in the expression of CYP2S1 mRNA is carried out~~ using quantitative real time PCR analysis.

17-31. (Cancelled)

32. (Currently Amended) A method of preventing, treating or ameliorating in a subject a skin condition related to increased or decreased CYP2S1 expression in skin, which comprises administering to the subject CYP2S1, a vector capable of expressing CYP2S1, or an agent capable

of modulating expression of CYP2S1 in skin tissue thereby modulating the CYP2S1 expression in skin.

33. (Currently Amended) A method of diagnosing a skin condition associated with increased or decreased expression of CYP2S1, or a predisposition to a skin condition associated with increased or decreased expression of CYP2S1 comprising

detecting a level of CYP2S1 in a test skin sample ~~according to the method of claim 39~~ and comparing said level against a normal control, wherein an increase or decrease in the CYP2S1 level in the test skin sample as compared to the normal control is indicative of said skin condition or said predisposition to a skin condition.

34. (Currently Amended) A method of diagnosing in an individual a skin condition associated with increased or decreased expression of CYP2S1 or a predisposition to a skin condition associated with increased or decreased expression of CYP2S1, comprising

detecting in a skin cell of the individual a polymorphism in a CYP2S1 gene or upstream sequence thereof, which affects expression of CYP2S1,

wherein detection of a the polymorphism is indicative of said skin disorder or said predisposition thereto.

35. (Currently Amended) A method of detecting effectiveness of a skin treatment to be administered to a patient suffering from a skin condition, comprising the steps of:

a) ~~obtaining a first sample of diseased skin from the patient and detecting according to the method of claim 39~~ a level of CYP2S1 in the a first sample of diseased skin from the patient prior to administration of the skin treatment;

b) administering said skin treatment to the patient; and

c) ~~obtaining a second sample of diseased skin from the patient and detecting according to the method of claim 39~~ an increase or decrease in the level of CYP2S1 in the treated first sample compared to the untreated first sample in a) or a second sample of untreated diseased skin from the patient.

36. (Currently Amended) A method of detecting whether ~~or not~~ a subject is likely to respond to a skin treatment with a chemical which is metabolisable by CYP2S1, comprising the steps of:

a) obtaining a first sample of diseased skin and a second sample of non-diseased skin from a subject; and

b) ~~detecting according to the method of claim 39 a~~ the level of CYP2S1 in the first and second samples,

wherein an increase in the CYP2S1 level in the first sample compared to the second sample is indicative of a subject who may respond favourably to said skin treatment.

37. (Canceled)

38. (Currently Amended) A method of improving effectiveness of a skin treatment being administered to a subject comprising the steps of

a) ~~detecting according to the method of claim 39 a level of CYP2S1 in the skin of said~~ subject; and

b) either increasing or decreasing the level of CYP2S1 in the skin of said subject receiving said skin treatment.

39. (Canceled)